

AMENDMENTS TO THE CLAIMS

CLAIMS 1-12 (CANCELLED)

13. (NEW) A high frequency module, characterized by comprising:

a first main waveguide;

a first T-branch circuit connected to the first main waveguide;

a first low-pass filter connected to the first T-branch circuit for transmitting a first frequency band and reflecting a second frequency band;

a band-pass filter connected to the first T-branch circuit for transmitting the second frequency band and reflecting the first frequency band;

a first converter connected to the first low-pass filter for converting transmission lines between a waveguide and a microwave integrated circuit;

an amplifier connected to the first converter and structured by the microwave integrated circuit;

a second converter connected to the amplifier for converting transmission lines between a waveguide and the microwave integrated circuit;

a second low-pass filter connected to the second converter for transmitting the first frequency band and reflecting the second frequency band;

a second T-branch circuit connected to the second low-pass filter and the band-pass filter;

and a second main waveguide connected to the second T-branch circuit.

14. (NEW) A high frequency module according to claim 13, characterized in that the band-pass filter comprises a first band-pass filter connected to the first T-branch circuit and

having a partially bent longitudinal axis for transmitting the second frequency band and reflecting the first frequency band,

characterized by further comprising:

a first bend connected to the first band-pass filter;

a second bend connected to the first bend;

a second band-pass filter connected to the second bend and having a partially bent longitudinal axis for transmitting the second frequency band and reflecting the first frequency band,

characterized in that the second T-branch circuit connected to the second low-pass filter and the second band-pass filter.

15. (NEW) A high frequency module, characterized by comprising:

a first main waveguide;

a first T-branch circuit connected to the first main waveguide;

a first band-pass filter connected to the first T-branch circuit for transmitting a first frequency band and reflecting a second frequency band;

a second band-pass filter connected to the first T-branch circuit for transmitting the second frequency band and reflecting the first frequency band;

a first converter connected to the first band-pass filter for converting transmission lines between a waveguide and a microwave integrated circuit;

an amplifier connected to the first converter and structured by the microwave integrated circuit for converting transmission lines between a waveguide and the microwave integrated circuit;

a second converter connected to the amplifier;

a third band-pass filter connected to the second converter for transmitting the first frequency band and reflecting the second frequency band;

a second T-branch circuit connected to the third band-pass filter and the second band-pass filter;

and a second main waveguide connected to the second T-branch circuit.

16. (NEW) A high frequency module, characterized by comprising:

a first main waveguide;

a first T-branch circuit connected to the first main waveguide;

a first band-pass filter connected to the first T-branch circuit for transmitting a first frequency band and reflecting a second frequency band;

a second band-pass filter connected to the first T-branch circuit and having a partially bent longitudinal axis for transmitting the second frequency band and reflecting the first frequency band;

a first converter connected to the first band-pass filter for converting transmission lines between a waveguide and a microwave integrated circuit;

an amplifier connected to the first converter and structured by the microwave integrated circuit; a second converter connected to the amplifier for converting transmission lines between a waveguide and the microwave integrated circuit;

a third band-pass filter connected to the second converter for transmitting the first frequency band and reflecting the second frequency band;

a first bend connected to the second band-pass filter;

a second bend connected to the first bend;

a fourth band-pass filter connected to the second bend and having a partially bent longitudinal axis for transmitting the second frequency band and reflecting the first frequency band;

a second T-branch circuit connected to the third band-pass filter and the fourth band-pass filter;

and a second main waveguide connected to the second T-branch circuit.

17. (NEW) A high frequency module according to claim 13, characterized by further comprising a one-side corrugated rectangular waveguide low-pass filter as the low-pass filter.

18. (NEW) A high frequency module according to claim 13, characterized by further comprising an inductive iris-coupled rectangular waveguide band-pass filter as the band-pass filter.

19. (NEW) A high frequency module according to claim 13, characterized in that the T-branch circuit is provided with a matching step at its branch point.

20. (NEW) A high frequency module according to claim 13, characterized by being structured by combining two metal blocks to which the main waveguides, the T-branch circuits, the low-pass filters or the band-pass filters, the band-pass filter or the band-pass filters each having a partially bent longitudinal axis and the bends, and waveguide portions of the converters are bored.

21. (NEW) A high frequency module according to claim 20, characterized in that the amplifier has one metal plate thereon, and in a gap between the metal plate and an outer wall wider face of the amplifier, a one-side capacitive iris-coupled rectangular waveguide low-pass filter is provided, the waveguide inner walls of which comprise the metal plate and the outer wall wider face of the amplifier.

22. (NEW) A high frequency module according to claim 20, characterized in that the amplifier has one metal plate thereon, and in a gap between the metal plate and an outer wall wider face of the amplifier, a one-side corrugated rectangular waveguide low-pass filter is provided, the waveguide inner walls of which comprise the outer wall wider face of the metal plate and the amplifier.